

What Is Claimed Is:

1. A hot-film air mass meter for recording the air flow rate in the intake or charge air tract of an internal combustion engine, having a substrate part (3) that accommodates a sensor chip (6) which is allocated to a channel (10) that has flowing through it at least a partial mass flow of a flowing medium, the sensor chip (6) extending into the channel (10) that has flowing through it the partial mass flow of the flowing medium, wherein the substrate part (3), into which the sensor chip (6) is integrated downstream with respect to a flow direction (11) and lying behind a leading edge (5), is developed either as a component that is able to be fastened separately to an electronics module (2) or as a unit extruded onto the electronics module (2).
2. The hot-film air mass meter as recited in Claim 1, wherein the sensor chip (6) is accommodated in a recess (4) used to limit the former on all sides as a cavity (9) at a circumflowed side of substrate part (3).
3. The hot-film air mass meter as recited in Claim 1, wherein the upper side of the sensor chip (6) forms a flat running surface with one side (7, 8) of the substrate part (3).
4. The hot-film air mass meter as recited in Claim 1, wherein a tight adhesion is formed between the hybrid chamber (20) and the bypass channel (10).
5. The hot-film air mass meter as recited in Claim 1, wherein the floor of the recess (4) used as the cavity (9) in the substrate part (3) is flat.
6. The hot-film air mass meter as recited in Claim 1, wherein the electronics module (2) lies on a support surface (24) of a plug housing (22) which has an opening (27) pointing towards the bypass channel (10).
7. The hot-film air mass meter as recited in Claim 1, wherein a printed circuit board (12) is accommodated in the electronics module (2) that is developed in a U profile by being set with pins or adhered.
8. The hot-film air mass meter as recited in Claim 1, wherein the sensor chip (6) is fixed within the recess (4) by latching projections (15).

9. A method for producing a printed circuit board (12) having a sensor chip (6) for recording the flow of a flowing material in a channel (11), having the following method steps:
  - a) stamping a sheet metal part (2) used as electronics module (2)
  - b) producing printed circuit traces on the printed circuit board (12),
  - c) mounting the plastic substrate tongue that accommodates the sensor chip (6) on the printed circuit board (12) and
  - d) assembling the substrate part (3) with the sensor chip (6) and assembling the printed circuit board (12) with the electronics components (29).
10. A method for producing a printed circuit board (12) having a sensor chip (6) for recording the flow of a flowing material in a channel (11), having the following method steps:
  - a) a printed circuit board (12) is developed in heat sink technology having an integrated sheet metal profile,
  - b) the printed circuit board (12) is layered onto a pressure compensating substrate (16), and press-fit together with it,
  - c) the substrate part (3) accommodating the sensor chip (6) is clamped to the printed circuit board, adhered to it or welded to it, and
  - d) the printed circuit board (12) is assembled with electronics components (29), and the mounted substrate part (3) is assembled with the sensor chip (6).